



Proven Technology Solutions

ASSEMBLY CAPABILITIES

i3 is a leader in cable assemblies covering the spectrum of interconnect products: discrete cables, multi-conductors, power, simple to complex harnesses, coax/RF

Proven expertise in PCBA Manufacturing

Value Add Services for Kitting/Kanbans, Integration, Box Builds, Full System Solutions



Cable & Harness | PCBA

Box Build | Electromechanical System Solutions



LOCATION, OFFERINGS & STAFFING

165,000 SQFT FACILITY

i3 has ability to add personnel across all shifts as needed to alleviate capacity constraints



200+ EMPLOYEES

15% ENGINEERS

3 SHIFT CAPABILITIES

OFFERINGS | MANY MARKET SEGMENTS

Cables and Harness Assembly
PCBA
Electro Mechanical Assemblies(EMA)/Box builds

Higher Level Assemblies(HLA)
Molding
Braiding

Test development
Environmental Testing
NPI / Quick turn



MILITARY APPLICATIONS



Reliability is the key. Lives are at stake. Your products cannot fail. i3 Assembly's dedication to high quality and reliable electronic solutions will ensure your products work each and every time.



From prototype to volume assembly, i3 Assembly will meet and exceed your exact requirements for mission-critical equipment.

i3 Assembly can support design for manufacturability, manufacture and test of all our products at our New York facility, providing rapid turnaround in a completely secure environment

PLATFORM EXPERIENCE

ACDSPD	CREW2x, 3x	JCAD	NIE Eforts	Stryker
ACV	CROSSHAIRS	JDAM	Owl	TALON
ALQ-114	DIRCM	JETS-TLDS	Paladin	TCDL
AMPV	Dragon Runner	JLTV	Patriot	TFAS
Armored Knight	E-130H	KU Band	Raven2	Towed Mortar Weapon
ASLAV	Early Warn Missile	L-ATV	Rover	TRIDENT
AS-N128	EQ36	LCMR	SATCOM	UAV Analytical Labs
Automated RX Dispenser	F35	LINK 16 Radio	SBIRS	UEWR
BAMDS	FBCB2	UH60R FLIR	SLQ-32	VITROS
Beam Imaging	FMTV	LRAS	SPAWAR	VSAT Terminals
BFT	FireCon-F	M109	SQQ32	
Bradley	FQE-IFF	M113		
Brand C	GMR	M1-Abrams		
Bronco	GMV	MAARS		
CBPS	High LowQE	M-ATV		
CDL	Honda Jet	MRFS		
Check 6	IDECM	MIDS		
CIRCM	INOD	MMS-P		
CLRF	Int Space Station Docking	MPF		
CMOP	ITT CREW 2.1	MTS		
Compass Call	JBC-P	Nett Warrior		



MOLDING CAPABILITIES

i3 Assembly investment and competitive strategy included the acquisition of molding products

Example Materials: Neoprene, Viton, EPDM



PARTIAL INVESTMENT LIST

DESCRIPTION	QTY
Molds & Inserts	300+/ 2500+
Hydraulic Presses	6
Braiding Machine	6
Industrial Ovens	3



Digital application and hardware to replace traditional harness boards with projection system using magnetic boards and 2D projection

Reduction of overall floor space; Quote time; Tooling time; Process writing; and Reduce errors

System compatible with Design and Documentation Software

This new technology will allow for quick change over and set-up of wiring boards and will greatly reduce build time for complex Harness board builds while improving repeatability





Numerous applications for our harness braiders:
EMI Shielding, Nylon, Nomex, etc.



EXAMPLES OF i3 CABLE TYPES



Cable with 16 molds

Cable with 15 molds

HIGH SPEED DATA



Phase match over 100' long

Cat6 across many platforms

D38999 QuadraX



i3 manufactured housing with switch and 4 I/O connectors

USB converter board to Serial with switch over molded

USB Repeater Board in cable

POWER



Nato Slave Power Connector



Power cables



Combo D-Sub power cables



Over molded power cable



Ground cables and Battery cables

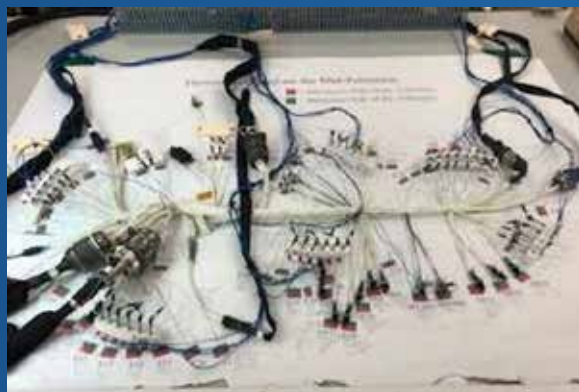


Power cables with lugs

EXAMPLES: HARNESES AND BOX BUILDS



Box Builds



Harness



Oversize Harness



Box Builds



Wearable Box Builds



Complex Harness

100% PRODUCT TESTING - EXAMPLES



VSWR & Insertion Loss DC-66 GHZ

Phase Matching

Pull/Testing (Crimp/Solder) Dielectric

Dielectric Withstanding Voltage HiPot testing (1500V)

4 Wire Ohm Measurement

USB Signal Integrity

Power Supply Functional Test

Audio Testing

Low DC Resistance Testing

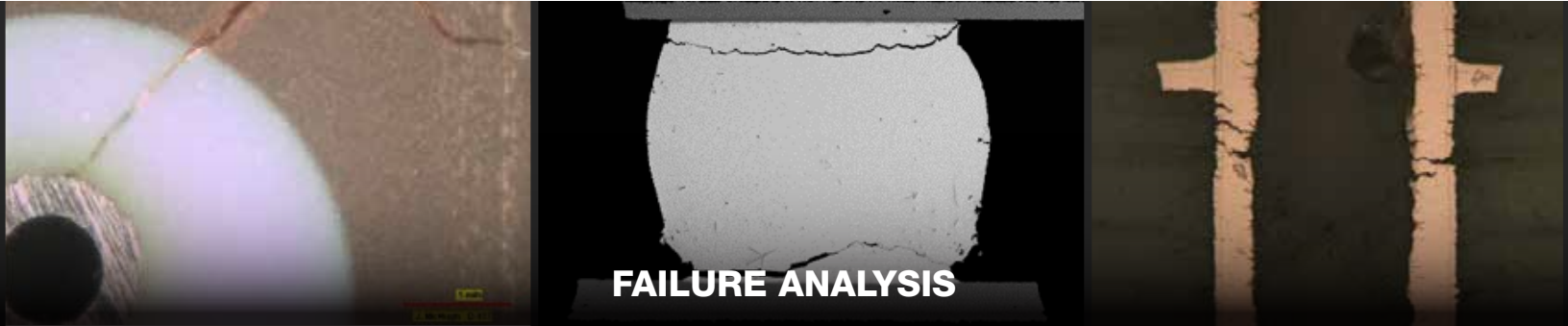
Capacitance Resistors

Tektronix TDR

3D Laser Measuring System



i3 builds Test mate boxes for speed and cost



FAILURE ANALYSIS

Analytical Capabilities

- Failure Isolation (Electrical, Mechanical)
- Cross / Flat Section
- Optical Microscopy
- CSAM (Acoustic Microscopy) Through Scan
- X-ray Radiography
- Micro-Hardness Testing
- Dye Penetration (Dye & Pry)
- Profilometry
- Pull, Peel, strain testing
- Hi-pot and Impedance testing

Extended Analytical Capabilities with Binghamton University

- Focused Ion Beam (FIB)
- Wavelength Dispersive Spectroscopy (WDS)
- Electron Spectroscopy for Chem. Analysis (ESCA, XPS)
- Auger Electron Surface Analysis (AES)
- Transmission Electron Microscopy (TEM)
- Scanning Electron Microscopy (SEM)
 - Fluorescence, Thermal Imaging
 - Energy Dispersive X-ray (EDS)
- X-ray Fluorescence (Thickness)
- uFTIR (Fourier Transform Infrared Spectroscopy)
- ATR, PAS (Photoacoustic)



ACCELERATED LIFE TESTING

Life Testing at i3 Advanced Labs

- Accelerated Thermal Cycling (ATC - Single zone)
- Deep Thermal Cycle (DTC - Dual zone)
- Preconditioning, (JEDEC, IPC, Reflow simulation, etc)
- High/Low Temperature Storage

Accelerated Life Testing focus on electrical opens

- Mean Time To Failure determinations (Shorts / CAF IPC-TM-650)
- Event detection (Opens during Stress IPC 9701)
- Identification of product risk sites
- Component failure rates
- Custom designed testing based on field operating conditions or risk site analysis

Stress Testing at i3 Advanced Labs

- Temperature and Humidity w/Bias (THB)
- High Accelerated Stress Testing (HAST - Autoclave)
- Cyclic Temperature and Humidity

Certifications at i3 Advanced Labs

- UL Authorized subcontractor
- AS9100 Rev D
- Lab Techs Certified IPC 600 Specialist



OVERVIEW

Our technology can be found in the world's fastest supercomputers, life-saving medical devices, complex imaging systems, mission-critical defense applications and thousands of other products, throughout the world.

- Turnkey Solution
- Lean Manufacturing & Product Traceability
- Surface Mount, Pin thru Hole & Flip Chip
- Mixed Technologies
- Large Board Assembly Capability
- NPI and Quick Turn
- DFM Services & Full Engineering Support
- Test Solutions (Flying Probe, ICT, Functional, Burn-In, ESS & Test Development)
- 3rd Party Partners or utilize your AVL
- Staffed for growth
 - 2 and 3 shift growth
 - Full Procurement
 - Full Supply Chain